A CASE STUDY OF MOLLUSC FARMING

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Our objective is to study the different kinds of molluscs that are being farmed locally for market and the different farming methods and practices used by the farmers to attain maximum production of any species being farmed.

To attain this objective three rivers in Negros Occidental were visited: Su-ay River, Talaban River and Hinigaran River. The Su-ay River and the Talaban River were found to have a fresh water source from the mountains; the Hinigaran River is actually an inlet with no fresh water stream that flows into it except for the small fresh water creeks that give a very low volume of fresh water especially during dry season. The salinity of these three rivers were found to range from 5 ppt to 25 ppt. Salinity increases down the river towards the sea. The best growth of molluscs can be observed when the salinity is between 15 to 25 ppt. Of the many different species of molluscs found in the market, only oysters (Ostrea malabonensis, Ostrea iredalei, and Ostrea cucullata, "talabang chinelas" in Tagalog; "nad saytil," "daligdig" in Ilocano, could also be found in abundance during April and May but no extensive culture has been found. The only culture of Greenshell can be found in the experimental SEAFDEC farm in Himamaylan. Greenshells found in the market are gathered from bamboo posts of old "tangaban" (current fish trap). They grow very well in certain deep areas of the Hinigaran River. On the other hand, oysters are cultured extensively in three rivers, especially in the Hinigaran River. According to the records of the Municipality of Hinigaran, there are about 80 hectares of oyster farms along the Hinigaran River.

For purposes of this study, the Hinigaran River oyster farms were chosen. The oyster farms extended from 200 sq m lots to the larger farms of 6 hectares. Perhaps, it is worth mentioning that it was in the Hinigaran River that the first oyster culture was started. The site of this oyster culture experiments was started by Dean Villaluz and first implemented on the site by the late Director Montalban in 1927. The site was a small lot beside the house of the experimental station of the former Division of Fisheries of the Bureau of Science.

Chosen for this experiment was an area of about 1,000 sq m along the bank of the Hinigaran River. The experiment used two (2) methods namely, the bamboo stake with oyster shells attached to it and bamboo raft that were sunk to about one (1) foot above zero datum. Culture of oysters, while practiced continuously by a few for domestic use, did not grow to these extensive areas until about 1950.

For our case study on mollusc farming namely, oyster (Ostrea malabonensis) (talaba), we have chosen the oyster farm of Mr. Jose Sarrosa which has a total area of about 5 hectares. In this particular farm, Mr. Sarrosa uses four (4) different methods of culture namely, 1) Hanging method, 2) Stake method, 3) Broadcasting method, and 4) Stone method.

1. Hanging Method. The hanging method consists of threaded empty shells with 1 1/2 meter length of polyethylene cord no. 6, provided with a knot as suspension with intervals of six inches from each empty shell. The cultches are hung from a long horizontal bamboo pole. These threaded empty shells are suspended about 1 foot from the bottom. Of all the four (4) methods used, this is the most profitable because oysters grow rapidly and in abundance. This method does not create rapid siltation so that there is always a continuous flow of oyster food with the river current during the incoming tide or the outflowing ebb. However, the farmer complains that threading the empty shells, hanging the clutches and constructing the stand are tedious and involve much expense. Another problem that he encounters with this method, as he starts to inspect and collect mature oysters, is poachers. He continues to harvest every two (2) weeks. Harvesting is done by untying the nylon strings from the horizontal bamboo. Each stringful of mature oysters are replaced with new ones having empty shells as clutches. The nylon thread can be re-used many times.

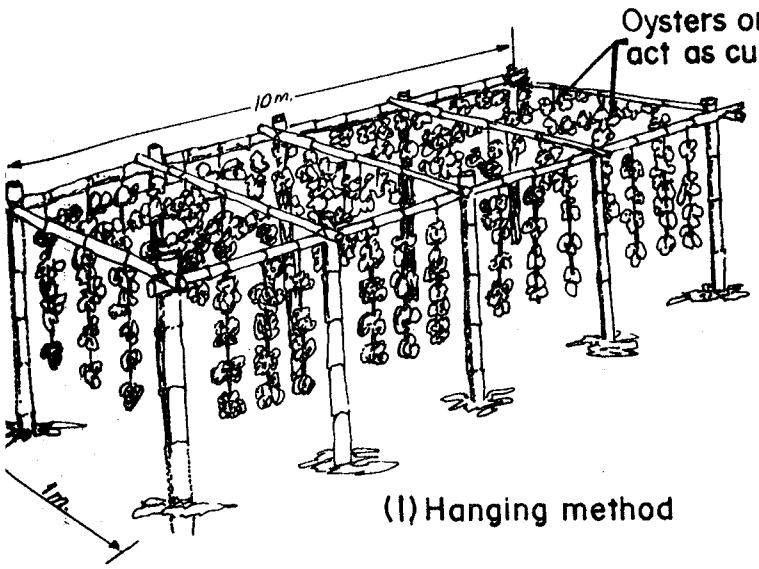
2. Stake Method. The stake method consists of planting stakes about two (2) meters long and spaced about 2 1/2 meters apart. These bamboo stakes or posts are stuck securely on the river floor. Empty oyster shells are embedded on the stake to act as oyster clutches. These clutches are placed on the portion of the bamboo about a foot from the river floor. Harvesting starts about six (6) months after the stakes are placed. The harvesting method used is to unclutch the matured oysters from the pole and allow the others to grow to bigger sizes. The stakes are replaced as the bamboo pole begins to rot. His problem on this method is, again, poachers. The method may not be as expensive as the hanging method, yet the cost of bamboo must be taken into consideration. He has observed that oysters grow faster on older bamboos.

3. Broadcasting Method. This method involves spreading oyster shells over the river floor. This is the most inexpensive method because one does not have to buy practically anything. The only cost involved is labor cost of spreading the oyster shells. The shells are grouped with 30 or 20 empty shells in each group and spaced at a distance of about one-half meter. Harvesting is done only when the oysters are fully matured, which takes about 8 to 12 months. As the oysters begin to cluster, thus forming a mass or group, the mass is lifted from the river floor every 20 to 30 days depending on the lowest ebb. This is done to prevent the group from being completely covered with silt. The farmer does not have much problem with poaching in this method.

4. Stone Method. The stone method is used along river banks. close to the fishpond dikes. Actually, the stones are placed along these dikes on the ocean floor to prevent too much erosion on the fishpond dikes caused by wave action and river current. Oyster shells are placed between the stones. Oysters are allowed to grow and are harvested after 8 to 12 months by peeling off the matured oysters from the stones. Only oysters that adhere above the silted river floor are harvested. Stones used for this purpose range from 8 to 16 inches in diameter. This method cannot be used on river floors due to rapid siltation.

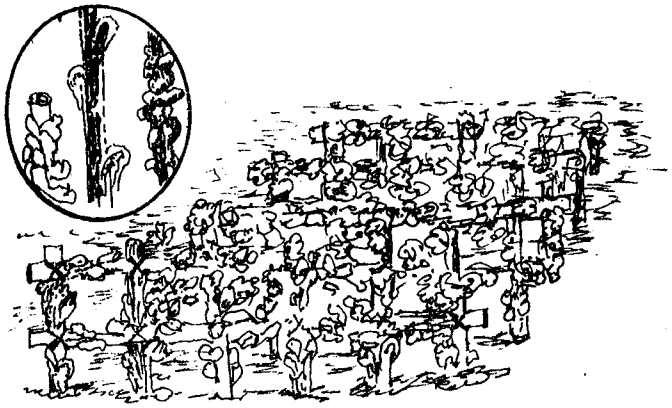
The most ideal harvestable oysters are 2.5 to 3 inches long in the right valve. Throughout the year the farmer produces, on the whole 6-hectare area using these four (4) methods, about 8,000 kerosene cans of matured oysters. The oysters are sold locally wholesale at ₱5.00 per can.

According to an old saying from the people who derive their livelihood from Hinigaran River, oysters, greenshells, and crustaceans (prawns, shrimps, crabs) are at their healthiest or best growth during the months of the year that have the letter R in the spelling.

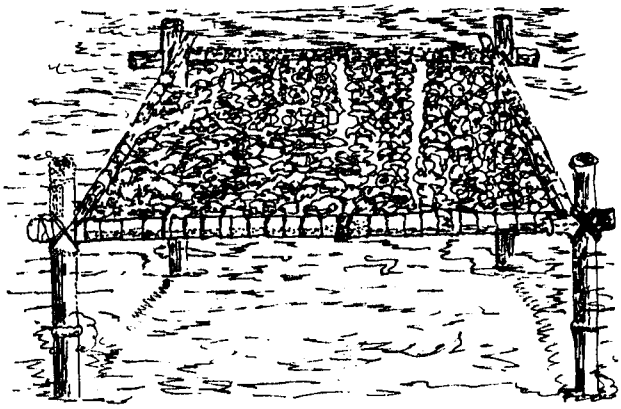


(1) Hanging method

(3) Broadcasting method



(2) Stake method



Tray method

Log method

(4) Stone Method